March 24, 1989 CD-89-03 (LD)

Dear Manufacturer:

Subject: Fuel Economy Disposition Assignment

The purpose of this letter is to announce the availability of a new optional procedure for assigning fuel economy test dispositions. The procedure was originally discussed as a proposal in my November 19, 1987 letter (No. CD-87-15 (LDV)). Response to the proposal was overwhelmingly positive. While the new procedure is optional, we expect many manufacturers will find it useful and we encourage its use.

Under the optional procedure, manufacturers can use a computer program (SAQM:1201C-MDISP) to assign fuel economy dispositions interactively. Assigning dispositions in this fashion will give the manufacturer greater control of the timing of label submissions and CAFE's. It will also save EPA personnel effort that can be redirected to other areas.

Currently, fuel economy labels and CAFE's will not be accepted by our computer system unless all the tests referenced in the submission have a fuel economy disposition of 1. Since the assignment of fuel economy dispositions was previously done only by EPA personnel, manufacturers frequently contacted EPA to discuss the status of fuel economy disposition assignment. At times, a manufacturer had to delay its submission of a label or CAFE for the dispositions to be completed or had to resubmit a label because our computer system rejected it for lack of dispositions. This proposal is a direct result of several manufacturers' requests for a system to assign dispositions themselves.

The procedures for using the computer program are explained in detail in Enclosure I. The procedure is relatively simple, and the basic steps are as follows:

1. The manufacturer must decide whether the vehicle has completed testing and is ready for disposition assignment. The computer program cannot check to see if the vehicle is ready for disposition assignment, so manufacturers should be careful to assure that the following statements are all true before

sourcing the disposition assignment program. Dispositions assigned by manufacturers not following the appropriate procedures will be considered void. The necessary conditions to assign dispositions are:

The test vehicle has completed EPA confirmatory testing review and has completed all required testing.

Any questions of vehicle representativity have been resolved (e.g., quickchecks are within established tolerances).

Analytically adjusted data has been approved for use by EPA.

- 2. The manufacturer must decide what the appropriate dispositions are for the vehicles in question. Enclosure II is a flow chart of the decision process that should be used to select fuel economy dispositions. This is the same procedure used for several years so it should be familiar to most manufacturers.
- The disposition assignment program must be sourced (type: "\$SOURCE SAQM:1201C-MDISP"). The program will verify that only tests belonging to the manufacturer involved may be accessed. The program will also check to assure that all dispositions assigned by the manufacturer conform to the established In rare cases, it may be appropriate to assign quidelines. dispositions which do not conform to the usual guidelines. These special cases cannot be assigned by the manufacturer; notify your representative to instead team have these dispositions assigned. Vehicles with four or more valid EPA tests in a test cycle (which is a very rare situation) must be assigned by EPA personnel since the computer program will not handle this situation.
- 4. Dispositions can then be entered by typing the test number and the disposition or by typing "ENTER" and then the first In the "ENTER" mode, the computer will test number only. prompt you with each test number associated with the vehicle; you only need type in the disposition code. We anticipate that "ENTER" mode will be quicker and easier for most the manufacturers. The tests will be printed in chronological order according to the following categories: city tests, manufacturer city tests, EPA highway tests, manufacturer highway tests.

It is important that you assign dispositions to all the tests on a vehicle version before going on to the next vehicle. The program will notify you if you have not completed entering dispositions for all tests on the vehicle. You can print a table of tests on a vehicle if you are not sure of all the tests involved. When you have finished entering dispositions for a vehicle type "COMMIT" to enter the dispositions into the data base (until you type "COMMIT", dispositions are held in a pending file). Then you can go on to the next vehicle.

If the computer program disagrees with your disposition assignment, it will tell you and give you a chance to verify your entry. If you made a mistake, type in the correct disposition. If you believe your disposition selection is correct, contact your EPA representative to assign the disposition and go on to the next vehicle. The program will not let you assign dispositions that do not follow the usual disposition assignment procedures. Legitimate variations from the established procedure should be very rare, so you should be able to assign virtually all of your dispositions using this program.

If there is sufficient interest expressed by manufacturers, EPA will hold a workshop to discuss how to use this computer program and answer manufacturer questions. If you would like to have a workshop please contact Mr. Eldert Bontekoe by April 21, 1989. If you have any questions about the computer program, please contact your certification team representative.

Sincerely,

Robert E. Maxwell, Director Certification Division Office of Mobile Sources

Enclosures

XIV --Manufacturer Disposition Assignment Program

The Manufacturer Disposition Assignment Program

A. Introduction. The Manufacturer Disposition Assignment Program is an interactive program that can be run by manufacturers from terminals connected to a computer at Wayne State University in Detroit, Michigan. This program runs under a computer operating system named the Michigan Terminal System (MTS). The program can be used to assign Fuel Economy Disposition to certification and fuel economy tests performed at manufacturer's testing laboratories and at MVEL. MTS user accounts beginning with the letter 'I' can use this program to assign Fuel Economy Dispositions to the test data identified under the manufacturer code for 1989 and later active year tests.

A second disposition assignment program, the EPA Disposition Assignment Program, is available for use by EPA personnel. This program can be used to assign values of Test Packet Status, Certification Disposition, and Fuel Economy Disposition to EPA and manufacturer tests.

- B. Disposition and Test Packet Status. Three items of information are used to define the status of EPA and manufacturer tests: Test Packet Status, Certification Disposition, and Fuel Economy Disposition.
 - 1. Test Packet Status. Test Packet Status (T.P.S.) is assigned to tests conducted at the EPA laboratory by EPA testing personnel in EOD Data Control. The T.P.S. is used to indicate whether the test results have been reviewed and are complete. With the exception of void Certification Disposition codes, dispositions cannot be assigned to EPA tests until a T.P.S. value of 1 has been assigned to indicate that the result review is complete. Test Packet Status is not assigned to manufacturer tests.

2. Certification Disposition. The Certification Disposition is used to specify the purpose of an EPA or manufacturer test in the certification process. Certification Disposition codes can be assigned by the EPA and manufacturers test programs, by users through these programs, and by EPA Certification Team members through the EPA Disposition Assignment Program.

The EPA test data processing program (Vehicle Test Data Sheet Program) assigns pending Certification Disposition codes to 1989 and later certification and fuel economy tests conducted at MVEL. Pass/fail criteria are used to determine pending Certification Disposition. When EOD Data Control assigns the Test Packet Status through the EPA Disposition Assignment Program, the Disposition Assignment Program automatically assigns the pending Certification Disposition as the actual disposition for the test. Void Certification Dispositions cannot be

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assigned to EPA tests through the EPA Disposition Assignment Program; they must be submitted through the test program. Fuel Economy Disposition codes cannot be assigned to EPA tests until the Certification Disposition has been assigned.

The Manufacturers Test Data Sheet (MTDS) program automatically assigns Certification Disposition codes to many 1989 and later manufacturer certification and fuel economy tests. The MTDS program assigns Certification Disposition codes 1 (pass), 2 (can be used for fuel economy), 3 (fail), and 8 (zero mile) to test type 1 and 31 city and highway tests. Pass/fail criteria are used to determine when to assign disposition codes 1 and 3. Other disposition codes 4 (void) and 7 (after shipment) must be submitted by the manufacturer as part of the MTDS input. Manufacturers must also submit dispositions for durability data vehicle (test type 2) tests.

3. Fuel Economy Disposition Codes. Fuel Economy Disposition Codes are used to specify the function of a test in the fuel economy process. EPA personnel can use the EPA Disposition Assignment Program to assign fuel economy dispositions to EPA and manufacturer tests. In some instances (e.g. void tests) the test programs will also assign Fuel Economy Disposition codes.

Manufacturers (and EPA users) can run an interactive program (described in these instructions) to assign Fuel Economy Disposition codes to EPA and manufacturer tests. The Manufacturer Disposition Assignment Program uses a defined sequence to support Fuel Economy Disposition assignment by EPA and manufacturers. User commands are entered to specify Fuel Economy Dispositions.

The meaning of several disposition codes have been revised for 1989 and later vehicles. The table below provides the current meaning of codes for Test Packet Status, Certification Disposition and Fuel Economy Disposition:

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Meaning of Disposition and Test Packet Status Codes Test Packet Status Codes (EPA tests only)

blank --Review not completed
1 --Review completed

Certification non-durability data vehicles and fuel economy data vehicles

blank -- No disposition

- 1 --Pass
- 2 -- Can be used for fuel economy

```
3
            --Fail
   4
            --Void
   5
            --D.F. not available (obsolete)
            --Only evap, used for cert (manufacturer tests
   6
               only --assigned by EPA Certification Teams when
               evap test waived at EPA)
   7
            --After shipment (manufacturer tests only)
            --Zero mile data (not used for cert)
   8
   9
            --Highway test fail NOx limit (1989 and later)
               Test waiver data (1988 and earlier)
Certification durability data vehicles
blank -- No disposition
            --Pass, used for cert
   2
            --Pass, not used for cert
   3
            --Fail
   4
            --Void
            --Fail, used for calculation of D.F.
   7
            --Zero mile data (not used for cert)
Fuel Economy Disposition Codes
blank -- No disposition
            --Used for fuel economy
   1
   2
            --Not used for fuel economy
   3
            --Obsolete (for 1988 and earlier, was
               Reasonable, but not used for F.E.)
   4
            --Obsolete (for 1988 and earlier, was
               Not used for F.E., not reviewed)
   7
            --Obsolete (for 1988 and earlier, was
               Awaiting confirmatory testing)
```

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C. Running the program. To run the program enter:

\$SOURCE SAQM:1201C-MDISP

The Manufacturers Disposition Assignment Program allows manufactur-

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ers to enter user commands that can be used to assign Fuel Economy Dispositions. When the program starts up, the following prompt is printed to request a command from the user:

COMMAND MODE--ENTER ONE OF TEE FOLLOWING COMMANDS:

NNNNNN F

TABLE (T), SHORT-TABLE (ST), ENTER (E), COMMIT (C),

RESTART (R), QUIT (Q), HELP (H)

DCMD: table <---User enters command here

The program prints a prefix 'DCMD:' at the beginning of each command line to indicate that a command is requested from the user. Each command may be abbreviated by entering the one or two-character abbreviation indicated in parenthesis. All commands can be entered in upper, lower, or mixed case. If a valid command is not entered, the Disposition Assignment Program prints the following message:

USER ENTRY <ENTRY> DOES NOT CONTAIN A VALID COMMAND OR TEST NUMBER AND DISPOSITION OF THE FORM NNNNNN F. ENTER 'HELP' TO OBTAIN AN EXPLANATION OF EACH COMMAND.

ENTER A NEW COMMAND, OR ENTER A TEST NUMBER AND DISPOSITION.

This message will usually be printed because a test number is incorrect (See the explanation of the Test number and disposition command below.) Make sure that test numbers are entered in columns 1-6, followed by an optional blank character and Fuel Economy Disposition code. A detailed description of each command is provided below.

When this program is run test data base update only takes place after correct Fuel Economy Disposition codes have been specified for all City and highway tests belonging to the vehicle version. After this program begins execution, the user must specify the Test Number for one of the tests belonging to a vehicle version that requires Fuel Economy Disposition assignment. After a test number is specified, the Disposition Assignment Program reads test information for each EPA and manufacturer test belonging to the vehicle Once the test information has been read, the user can version. specify a Fuel Economy Disposition for each city or highway test. each Fuel Economy Disposition is specified, the Disposition Assignment Program compares the entered disposition with program-calculated value. A flow chart of the process used to determine dispositions is included in Enclosure II of the Dear Manufacturer letter that announces the availability of this program.

If entered dispositions agree with the program-calculated values, the program assigns the entered value as a 'pending' assignment; actual assignment does not take place until Fuel Economy Disposi-

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tions have been specified for all city and highway tests and the user gives an explicit command to update the data base. If entered dispositions do not match the program-calculated values, the program prints a message stating that the entered disposition is invalid, and the user is given an opportunity to enter a different value. Options are provided to print the status of pending and actual values of Certification and Fuel Economy Dispositions and Test Packet Status.

Fuel Economy Dispositions cannot be assigned to a vehicle version until Certification Dispositions have been assigned to all city and highway tests. If an attempt is made to assign a Fuel Economy Disposition before Certification Dispositions have been assigned, the Disposition Assignment Program prints the following message:

YOU CANNOT ASSIGN FUEL ECONOMY DISPOSITIONS UNTIL CERTIFICATION DISPOSITIONS HAVE BEEN ASSIGNED TO ALL CITY AND HIGHWAY TESTS FOR THE VERSION. USE ONE OF THE TABLE COMMANDS TO OBTAIN A LIST OF TEST NUMBERS AND CERTIFICATION DISPOSITIONS THAT HAVE BEEN ASSIGNED. CONTACT YOUR CERTIFICATION TEAM MEMBER TO ASSIGN CERTIFICATION DISPOSITIONS.

The TABLE commands can be used to produce a list of each disposition that has been assigned or is missing for each of the tests belonging to the specified vehicle version.

D. Command descriptions.

1. Test number and disposition (NNNNNN F) command. This is the most fundamental command. When a user wishes to assign Fuel Economy Disposition codes to the tests belonging to a vehicle version, this command can be used to identify one of the tests belonging to the vehicle version and to assign Fuel Economy Disposition codes. When the first test for a vehicle version is specified, the Disposition Assignment Program reads test information for all of the tests belonging to the vehicle version. None of the other commands except HELP, RESTART, ENTER or OUIT can be used until at least one test has been

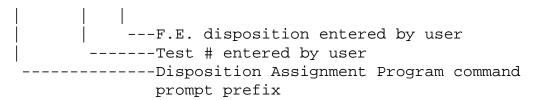
specified. User commands must be entered to use the automated decision process.* When the program initially enters command mode, it prints one of the following prompts to provide a summary of the commands available:

*When this program was developed, it was necessary to decide whether to design the program to use menus or commands. Menus can be much easier for users to learn. Commands, on the other hand, require much less printing on a terminal. Because the Disposition Assignment Program must run on very slow simple terminals, the second set of criteria was considered to be significant enough to require the use of commands. Smart terminals, such as personal computers, might have permitted the development of a friendlier user interface.

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The Test number and disposition command has the following form:

DCMD. nnnnnn f



The Fuel Economy Disposition is optional when the first test number is specified. This makes it possible to enter one test number, have the Disposition Assignment Program read test information for all of the tests associated with the vehicle version, and then use one of the report commands to print test information before actually beginning disposition assignment.

Note that Fuel Economy Dispositions are not actually entered in the data base until valid Fuel Economy Disposition codes have been entered for all city and highway tests belonging to the vehicle version.

Any certification or fuel economy test number may be used to identify the vehicle version. If the test is not a city or highway test, however, the program prints the following message to indicate that a Fuel Economy Disposition has not been

assigned:

TEST <TEST #> IS NOT A CITY OR HIGHWAY TEST. NO DISPOSITION ASSIGNED.

If a vehicle version has been specified and the test number entered belongs to a different vehicle or version, the Disposition Assignment Program prints the following message:

TEST NUMBER <TEST #> DOES NOT BELONG TO MANUFACTURER <MFR CODE> VEHICLE ID <VEHICLE ID> AND VERSION <VERSION D . YOU MUST COMPLETE PROCESSING TESTS FOR VEHICLE <VEHICLE ID> AND VERSION <VERSION NUMBER> OR ENTER 'RESTART' TO CANCEL PROCESSING AND START OVER WITH A DIFFERENT VEHICLE.

Disposition assignment for the current vehicle version must be completed or cancelled before dispositions can be assigned to tests belonging to a different vehicle version. Pending dispositions assigned to the current vehicle version can be cancelled by entering the 'RESTART' command.

The EPA test data base includes tests that are not used for certification or fuel economy. Test data for these tests is stored in separate data files which cannot be updated by manufacturers. Fuel Economy Dispositions cannot be assigned to these tests and these tests cannot be used to identify a vehi-

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cle version using this program. If a test number for one of these tests is specified, the Disposition Assignment Program will usually indicate that the test number is invalid. If, because of a software or data problem, one of these tests is in the certification and fuel economy data base, or if test type has been entered in the data base incorrectly, an attempt to enter the test number for one of these tests can cause the Disposition Assignment Program to print the following message:

TEST TYPE FOR TEST NUMBER <TEST #> IS <TEST TYPE CODE>
DISPOSITIONS CAN ONLY BE ASSIGNED TO CERT TEST TYPES
THROUGH THIS PROGRAM.

Certification test types are 1, 2, 8, 31, and 32. Notify

someone in the EPA Certification Division Computer Support Section if the preceding message appears.

This program can only be used for 1989 and later model year tests. If an attempt is made to specify a test number for an earlier model year test, the Disposition Assignment Program prints the following message:

TEST MODEL YEAR FOR TEST <TEST #> EQUALS 19yy
FUEL ECONOMY DISPOSITIONS CAN ONLY BE ASSIGNED TO 1989 AND
LATER MODEL YEAR TESTS.
DISPOSITION NOT ASSIGNED.,

where yy is the last two digits of the test model year.

Only Fuel Economy Disposition codes 1 and 2 can be assigned. If an attempt is made to assign a different value, the following message is printed:

F.E. DISPOSITION CENTERED VALUE> IS NOT '1' OR '2'. ONLY VALUES '1' AND '2' CAN BE ASSIGNED THROUGH THIS PROGRAM. THIS DISPOSITION CANNOT BE ASSIGNED.

When a Fuel Economy Disposition is entered, the Disposition Assignment Program attempts to validate the entered value. If the program determines that the entered value is incorrect, the following message is printed:

- F.E. DISPOSITION <ENTERED VALUE> IS INVALID. THIS DISPOSITION CANNOT BE ASSIGNED.
- 1. ENTER THE CORRECT DISPOSITION OR
- 2. ENTER 'RESTART' TO CANCEL ASSIGNMENT AND START OVER FOR ANOTHER VEHICLE OR
- 3. NOTIFY YOUR CERT TEAM MEMBER IF YOU THINK YOUR ENTRY IS REALLY CORRECT.

The Disposition Assignment Program can only validate disposition assignment when dispositions can be determined with three or fewer EPA tests. If four or more EPA tests are required to determine dispositions, the Disposition Assignment Program

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cannot correctly validate a user entry and dispositions cannot be assigned.* If this occurs, it will be necessary to manually determine what Fuel Economy Dispositions should be assigned. These must be entered by the EPA Certification Team member, who can directly assign dispositions. If, for any other reason, a manufacturer believes that an entry was improperly rejected, the EPA Certification Team member should be notified.

If an attempt is made to assign a Fuel Economy Disposition to a test that already has a disposition, the Disposition Assignment Program prints the following message:

FUEL ECONOMY DISPOSITION ALREADY ENTERED IN THE DATA BASE FOR TEST <TEST #>

THIS DISPOSITION CANNOT BE ASSIGNED.

This is not a problem if entered dispositions agree with program-calculated values; however, existing values can become incorrect if tests are processed after Fuel Economy Dispositions have been initially assigned to one or more tests belonging to the vehicle version. If a disposition needs to be changed, manufacturers must notify their EPA Certification Team member.

The EPA Certification Team member can use direct disposition assignment to correct dispositions after they are assigned.

Fuel Economy Dispositions cannot be assigned if there are no passing or failing tests for the vehicle version. If this occurs, the following message is printed:

NO PASSING OR FAILING TESTS FOR THE FOLLOWING VEHICLE BE-LONGING TO MANUFACTURER <V.I. MFR>:

VEHICLE ID = <VEHICLE ID> VERSION = <VEHICLE VERSION>
YOU WILL NOT BE ABLE TO ASSIGN F.E. DISPOSITIONS TO ANY
TESTS BELONGING TO THIS VEHICLE. ENTER ONE OF THE TABLE
COMMANDS TO OBTAIN INFORMATION ABOUT THE TESTS FOR THIS
VEHICLE, OR 'RESTART' TO ABORT PROCESSING FOR THIS VEHICLE.

Fuel Economy Dispositions cannot be assigned to a vehicle version until Certification Dispositions have been assigned to all city and highway tests. If an attempt is made to assign a Fuel Economy Disposition before Certification Dispositions have been assigned, the Disposition Assignment Program prints

the following message:

*The existence of four or more EPA tests does not prevent determination of program-calculated dispositions; there is only a problem if four or more are actually required to make the determination.

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YOU CANNOT ASSIGN FUEL ECONOMY DISPOSITIONS UNTIL CERTIFICATION DISPOSITIONS HAVE BEEN ASSIGNED TO ALL CITY AND HIGHWAY TESTS. USE ONE OF THE TABLE COMMANDS TO OBTAIN A LIST OF TEST NUMBERS AND CERTIFICATION DISPOSITIONS THAT HAVE BEEN ASSIGNED. CONTACT YOUR CERTIFICATION TEAM MEMBER TO ASSIGN CERTIFICATION DISPOSITIONS.

The TABLE commands can be used to produce a list of dispositions that have been assigned and are missing for each test belonging to the specified vehicle version.

As explained above, Fuel Economy Dispositions can only be validated when dispositions can be determined with three or fewer EPA tests. If four or more EPA tests are required to determine dispositions, the Disposition Assignment Program cannot correctly validate a user entry and dispositions cannot be assigned. If this occurs, the program prints the message below. The EPA Certification Team member must assign manually determined values of Fuel Economy dispositions. If, for any other reason, a user believes that an entry was improperly rejected, the EPA Certification Team member should be notified.

THE DISPOSITION ASSIGNMENT PROGRAM CANNOT VALIDATE F.E. DISPOSITION ASSIGNMENT BECAUSE THE TESTS FOR THIS VEHICLE VERSION DO NOT SATISFY THE DISPOSITION ASSIGNMENT CRITERIA. F.E. DISPOSITION ASSIGNMENT WILL NOT BE ALLOWED.

Once Fuel Economy Dispositions have been specified for each city or highway tests belonging to the vehicle version, the program prints the following message to indicate that no more dispositions need to be assigned:

DISPOSITIONS HAVE BEEN SPECIFIED FOR ALL PASSING AND FAIL-

ING CITY AND HIGHWAY TESTS. ENTER 'COMMIT' TO UPDATE THE DATA BASE.

The following messages are printed if (1) pending Fuel Economy Dispositions have been assigned to one or more tests and an attention interrupt (<BREAK> or <CONTROL-E>) or end-of-file (<CONTROL-C>) is entered before dispositions have been assigned to each city or highway test belonging to the vehicle version and (2) the data base has not been updated:

ATTENTION INTERRUPT ENTERED BEFORE DISPOSITION ASSIGNMENT IS COMPLETE. ENTER 'QUIT' IF YOU REALLY WANT TO ABORT DISPOSITION PROCESSING OR 'RESTART' IF YOU WANT TO START OVER WITH A DIFFERENT VEHICLE.

END-OF-FILE ENTERED BEFORE DISPOSITION ASSIGNMENT IS COM-PLETE. ENTER 'QUIT' IF YOU REALLY WANT TO ABORT DISPOSI-TION PROCESSING OR 'RESTART' IF YOU WANT TO START OVER WITH A DIFFERENT VEHICLE.

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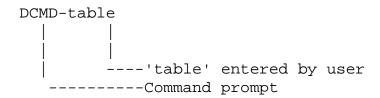
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These messages are printed as a warning to users. Otherwise, if the program could be terminated by entering an attention interrupt or end-of-file, users could lose pending entries because they failed to enter a COMMIT command to update the data base.

An attention interrupt of end-of file will terminate the program if no vehicle version is currently specified.

2. TABLE command. Users may need to obtain summary information about the tests that belong to the vehicle version. The TABLE command can be used by EPA and manufacturers to obtain a summary report of pending and actual disposition assignment for a vehicle version. The form of the TABLE command is:



'T' may be entered as an abbreviation for the TABLE command.

When the TABLE command is entered, the Disposition Assignment Program prints a report similar to the following:

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DISPOSITION SUMMARY FOR MANUFACTURER 777
VEHICLE ID TMW-EDV-502 AND VERSION 00

DISPOSITION INFORMATION FOR EPA CITY TESTS:

TEST # TT TP SY.MI. F.E. TPS CD OFD PFD

895432 01 02 2138 21.2 1 1

HARMONIC AVERAGE F.E. FOR EPA CITY TESTS = 21.2000

DISPOSITION INFORMATION FOR MFR CITY TESTS:

TEST # TT TP SY.MI. F.E. TPS CD OFD PFD

113021 01 02 13 21.4 N/A 8 2 2

123456 01 02 2121 21.5 N/A 1

HARMONIC AVERAGE F.E. FOR MFR CITY TESTS = 21.5000

DISPOSITION INFORMATION FOR EPA HWY TESTS:

TEST # TT TP SY.MI. F.E. TPS CD OFD PFD

895433 01 03 2145 33.9 1 2

HARMONIC AVERAGE F.E. FOR EPA HWY TESTS = 33.9000

DISPOSITION INFORMATION FOR MFR HWY TESTS:

TEST # TT TP SY.MI. F.E. TPS CD OFD PFD

123457 01 03 2128 33.7 N/A 2 2

HARMONIC AVERAGE F.E. FOR MFR HWY TESTS = 33.7000

This example includes three manufacturer tests and two EPA tests. For each test, the program prints:

Column label Description
TEST # Test number
TT Test type
TP Test procedure
SY.MI. System Miles
F.E. Test MPG Fuel Economy

T.P.S. Test Packet Status for EPA tests
CD Certification Test Disposition
OFD Old data base value of Fuel

Economy Disposition

PFD Pending values of Fuel Economy
Disposition that are to be written
to the data base

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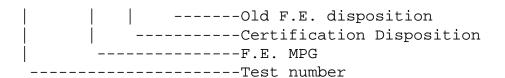
The TABLE command prints Fuel Economy Dispositions for all city and highway tests belonging to the vehicle version. In the example, Fuel Economy Dispositions have been printed for two test numbers. The Fuel Economy Disposition for test number 113021, a zero mile test, was assigned by the Manufacturers Test Data Sheet Program. This disposition cannot be changed through this program by manufacturers and it has no effect on the assignment of disposition codes to the other tests.

Fuel Economy Disposition 2 has been assigned to test 123457, presumably at an earlier step of this process that is not illustrated. This disposition will not be written to the data base until valid Fuel Economy Dispositions have been assigned to all of the other tests.

3. The SHORT-TABLE command. The TABLE command prints useful information that may be needed to assign dispositions. The reports produced by the TABLE command can be quit lengthy, however, and will often print more information than is really necessary. For this reason, a third report command, the SHORT-TABLE command, is provided to print short summary reports. For each test, the SHORT-TABLE command only prints Test Number, MPG fuel economy, data base Certification Disposition, data base Fuel Economy Disposition, and user-specified (pending) Fuel Economy Disposition. The form of the SHORT-TABLE command is:

'ST' may be entered as an abbreviation for the SHORT-TABLE command.

The following is an example of the information printed by the SHORT-TABLE command:



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Information for three tests is printed on each report line by the SHORT-TABLE command. The example above only illustrates two tests on each line because the printed page in these instructions is too narrow to illustrate three tests.

4. The ENTER command. The ENTER command is used to enter Fuel Economy Disposition codes for each city or highway test belonging to a vehicle version. When the ENTER command is used, the Disposition Assignment Program prints the Test Number of each city or highway test; the user enters the Fuel Economy Disposition after the Test Number is printed. The form of the ENTER command is:

 $\mbox{'E'}$ or $\mbox{'ETURN}\mbox{>}$ may be entered as an abbreviation for the ENTER command

When the ENTER command is entered for the first time, the program prints an explanation describing what happens if the user terminates disposition assignment before pending Fuel Economy Dispositions have been assigned to all tests:

ENTER COMMAND SEQUENCE

YOU CAN EXIT THE ENTER COMMAND SEQUENCE BY ENTERING <CONTROL-C>, RETURN TO THE MAIN COMMAND SEQUENCE, AND THEN RETURN AGAIN TO THE ENTER COMMAND SEQUENCE BY ENTERING 'ENTER' A SECOND TIME. PENDING DISPOSITION ASSIGNMENTS WILL BE RETAINED BY THE PROGRAM IN MEMORY UNTIL YOU ENTER 'RESTART', 'QUIT', OR 'COMMIT'. DISPOSITIONS WILL NOT BE

WRITTEN TO THE DATA BASE UNTIL YOU ENTER 'COMMIT'.

This message is not printed after subsequent attempts to specify ENTER. Instead, the program prints one line to indicate that the ENTER command sequence has been initiated:

ENTER COMMAND SEQUENCE

Because entering the <RETURN> key can initiate the ENTER command sequence as a default, the preceding line is printed as a warning to the user that the regular command sequence is not in effect.

The vehicle version to be updated can be specified by using the Test number and disposition command described in section C.1. above. If the ENTER command is entered and a vehicle version has not been specified, the program asks the user to specify the Test Number of one of the tests belonging to the vehicle version:

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TEST # = xxxxxx

| ----Test number entered by the user -----Command prompt

As mentioned above, Fuel Economy Dispositions can only be validated when dispositions can be determined with three or fewer EPA tests. If four or more EPA tests are required to determine dispositions, the program prints the message below; notify your EPA Certification Team member, who must directly assign Fuel Economy Dispositions in this situation.

THE DISPOSITION ASSIGNMENT PROGRAM CANNOT VALIDATE F.E. DISPOSITION ASSIGNMENT BECAUSE THE TESTS FOR THIS VEHICLE VERSION DO NOT SATISFY THE DISPOSITION ASSIGNMENT CRITERIA. F.E. DISPOSITION ASSIGNMENT WILL NOT BE ALLOWED.

The EPA test data base includes tests that are not used for certification or fuel economy. Fuel Economy Dispositions cannot be assigned to one of these tests. In addition, these tests cannot be used to identify a vehicle version. If an at-

tempt is made to enter the test number for one of these tests, the Disposition Assignment Program prints the following message:

TEST TYPE FOR TEST NUMBER <TEST #> IS <TEST TYPE CODE>
DISPOSITIONS CAN ONLY BE ASSIGNED TO CERT TEST TYPES
THROUGH THIS PROGRAM.

Certification test types are 1, 2, 8, 31, and 32.

Automated Fuel Economy Disposition assignment can only be used for 1989 and later model year tests. If an attempt is made to specify a test number of an earlier year test, the Disposition Assignment Program prints the following message, which was described for the TABLE command above:

TEST MODEL YEAR FOR TEST <TEST #> EQUALS 19yy
FUEL ECONOMY DISPOSITIONS CAN ONLY BE ASSIGNED TO 1989 AND
LATER MODEL YEAR TESTS.
DISPOSITION NOT ASSIGNED,

where yy is the last two digits of the test model year.

When a vehicle version has been specified, the program prints the Vehicle Information Manufacturer Code for the vehicle version, Vehicle Id, and Vehicle Version Number:

ASSIGN DISPOSITIONS TO TESTS FOR MANUFACTURER 777 VEHICLE ID TMW-EDV-502 VERSION 0

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The program then prompts the user to enter dispositions for EPA city tests, manufacturer city tests, EPA highway tests, and manufacturer highway tests:

EPA CITY TESTS: 895432

MFR CITY TESTS:

113021: F.E. DISP 2 ALREADY ENTERED IN THE DATA BASE.

123456: 2

EPA HWY TESTS:

895433: 1

MFR HWY TESTS:

123457: 2

_ _ _ _ _ _ _

I ---F.E. disposition entered by the user -----Test number printed by the program

If a Fuel Economy Disposition has already been assigned, either as a pending disposition by this program, or an actual disposition that has been written to the data base at another time, the program prints the test number, the pending or actual disposition, and an explanation that the disposition is already assigned. Once dispositions have been written to the data base, they cannot be changed through the program. Pending Fuel Economy Dispositions can be cancelled by entering QUIT or RESTART; however, they cannot be otherwise corrected once they have been assigned.

It may not be possible to assign Fuel Economy Dispositions because of an outstanding problem that requires correction. An example is a missing Certification Disposition. If this occurs, the Disposition Assignment Program prints a message similar to the following:

YOU WILL NOT BE ABLE TO ASSIGN F.E. DISPOSITIONS BECAUSE MFR CITY TESTS HAVE THE FOLLOWING PROBLEM:

<PROBLEM DESCRIPTION>

THE PROGRAM WILL RETURN CONTROL TO THE COMMAND SEQUENCE WHERE YOU CAN USE ONE OF THE TABLE COMMANDS TO OBTAIN MORE INFORMATION.

The preceding message provides a general indication of the problem. By returning to the command sequence and using one of the TABLE commands, a more detailed explanation of the problem can be obtained. For example, if Certification Disposition was missing, the preceding message would simply indicate that Certification Disposition was missing for an unknown manufacturer city test. By running one of the TABLE commands, it is possible to identify each test that requires a Certification Disposition.

For 1989 and later certification and fuel economy tests, only Fuel Economy Disposition codes '1' and '2' can be assigned. The following message is printed by the Disposition Assignment if an attempt is made to enter any other value:

F.E. DISPOSITION <ENTERED VALUE> IS NOT '1' OR '2'. ONLY VALUES '1' AND '2' CAN BE ASSIGNED THROUGH THIS PROGRAM. THIS DISPOSITION CANNOT BE ASSIGNED.

When a Fuel Economy Disposition is entered, the Disposition Assignment Program attempts to validate the value entered by the user. If the program determines that the entered value is incorrect, the following message is printed:

- F.E. DISPOSITION <ENTERED VALUE> IS INVALID. THIS DISPOSITION CANNOT BE ASSIGNED.
- 1. ENTER THE CORRECT DISPOSITION OR
- 2. ENTER 'RESTART' TO CANCEL ASSIGNMENT AND START OVER FOR ANOTHER VEHICLE OR
- 3. NOTIFY YOUR CERT TEAM MEMBER IF YOU THINK YOUR ENTRY IS REALLY CORRECT.

The user may leave the ENTER command sequence at any time by entering an end-of-file (<CONTROL-C>) or attention interrupt (<BREAK> or <CONTROL-E>). The program saves pending dispositions in memory until the user updates the data base by entering 'COMMIT', or pending assignments are canceled by entering 'RESTART' or 'QUIT'. As a result, the user may exit the ENTER command sequence, return to the main command sequence, produce summary reports using one of the Table commands, and then return to the ENTER command sequence by entering ENTER again. If an attention interrupt or end-of-file is entered, the program prints one of the following messages before returning to the main command sequence:

*** ATTENTION INTERRUPT ***

DISPOSITION ENTRY HAS BEEN TERMINATED AND CONTROL WILL RETURN TO THE PROGRAM COMMAND SEQUENCE. PENDING DISPOSITIONS HAVE NOT BEEN WRITTEN TO THE DATA BASE; HOWEVER, ANY PENDING DISPOSITIONS HAVE BEEN SAVED IN MEMORY. FROM THE COMMAND SEQUENCE YOU CAN RESUME ENTERING PENDING DISPOSITIONS BY ENTERING THE 'ENTER' COMMAND OR BY ENTERING TEST NUMBER AND DISPOSITION.

*** END-OF-FILE ***

DISPOSITION ENTRY HAS BEEN TERMINATED AND CONTROL WILL RETURN TO THE PROGRAM COMMAND SEQUENCE. PENDING DISPOSITIONS HAVE NOT BEEN WRITTEN TO THE DATA BASE; HOWEVER, ANY PENDING DISPOSITIONS HAVE BEEN SAVED IN MEMORY. FROM THE COMMAND SEQUENCE YOU CAN RESUME ENTERING PENDING DISPOSITIONS BY ENTERING THE "ENTER" COMMAND OR BY ENTERING TEST NUMBER AND DISPOSITION.

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Once pending dispositions have been assigned to each city or highway test belonging to a vehicle version, the program prints the following message:

PENDING DISPOSITIONS HAVE BEEN SPECIFIED FOR CITY AND, HIGHWAY TESTS. ENTER

- 1. 'COMMIT' TO ENTER PENDING ASSIGNMENTS IN THE, DATA BASE,
- 2. 'RESTART' TO CANCEL PENDING ASSIGNMENTS AND BEGIN ENTRY FOR A DIFFERENT VEHICLE VERSION,
- 3. 'QUIT' TO CANCEL PENDING ASSIGNMENTS AND RETURN TO THE MAIN COMMAND SEQUENCE, OR
- 4. <CONTROL-C> TO RETURN TO THE COMMAND SEQUENCE, WITHOUT DATA BASE UPDATE (PENDING ASSIGNMENTS ARE PRESERVED).

If 'COMMIT' or 'RESTART' is entered, the program performs the same operation that is performed if either of these commands is entered directly from the main command sequence (See the description of the COMMIT and RESTART commands below.) Once the COMMIT or RESTART operation is complete, however, the program resumes the ENTER command sequence to permit the specification of dispositions for more vehicle versions. If 'QUIT' is entered, the program leaves the ENTER command sequence and returns to the main command sequence.

If none of these commands is entered, the Disposition Assignment Program prints the following message:

INVALID COMMAND. YOU MUST ENTER 'COMMIT', 'RESTART', 'QUIT', OR <CONTROL-C>.

5. The COMMIT command. Once valid Fuel Economy Disposition codes have been assigned to every city or highway test, the user must enter the COMMIT command to actually update the data base. No data base update takes place until the user has been given an opportunity to review pending disposition assignments and gives an explicit command to perform the update. The user is responsible for the dispositions entered in the data base.

The form of the COMMIT command is:

DCMD: commit

I ----'commit' entered by the user

'C' may be entered as an abbreviation for the COMMIT command. An example of the information printed by the COMMIT command is illustrated below:

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TEST 895432 -- F.E. DISPOSITION 1 WRITTEN TO THE DATA BASE.

TEST 113021 -- F.E. DISPOSITION 2 ALREADY WRITTEN TO THE DATA BASE.

TEST 123456 -- F.E. DISPOSITION 2 WRITTEN TO THE DATA BASE.

TEST 895433 -- F.E. DISPOSITION 1 WRITTEN TO THE DATA BASE.

TEST 123457 -- F.E. DISPOSITION 2 WRITTEN TO THE DATA BASE.

The Disposition Assignment Program may not be able to update the data base if an outstanding problem exists. This can occur, for example, if a Certification Disposition needs to be assigned. When this occurs, the program prints a message similar to the following:

F.E. DISPOSITIONS CANNOT BE ENTERED IN THE DATA BASE BE-CAUSE OF THE FOLLOWING PROBLEM FOR MFR CITY TESTS:

<PROBLEM DESCRIPTION>.

If there are no passing or failing tests for the vehicle version, the Disposition Assignment Program cannot validate F.E. disposition assignment. When this happens, the program prints the following message:

THERE ARE NO PASSING OR FAILING TESTS FOR THE VEHICLE BE-LONGING TO MANUFACTURER <V.I. MFR>, VEHICLE ID <VEHI-CLE ID> AND VERSION <VERSION NUMBER>.

The Disposition Assignment Program should reject any attempt to assign incorrect Fuel Economy Dispositions before they are entered as pending dispositions. If, for any reason, a valid pending disposition has not been assigned, the program prints the following message when the COMMIT command is entered:

ENTERED FUEL ECONOMY DISPOSITION FOR TEST NUMBER <TEST #> IS NOT VALID.

CERTIFICATION DISPOSITION = <CERTIFICATION DISPOSITION>
ENTERED F.E. DISPOSITION = <ENTERED F.E. DISPOSITION>
THE DATA BASE WILL NOT BE UPDATED . YOU MAY MAKE FURTHER
F.E. DISPOSITION ASSIGNMENTS TO THE TESTS FOR THIS VEHICLE
VERSION OR CANCEL THE UPDATES BY ENTERING 'RESTART'.

This message will usually be printed because Fuel Economy Dispositions are missing for at least one test belonging to the vehicle version. The TABLE commands can be used to identify any tests that still need Fuel Economy Disposition assignment. It is also possible to use the ENTER command and let the program prompt for any dispositions that still need to be assigned.

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If Fuel Economy Dispositions are entered at different times, or if someone at EPA has directly assigned Fuel Economy Dispositions, Fuel Economy Dispositions in the data base may not match values specified during the current run of the Disposition Assignment Program. If this occurs, the program prints the following message:

<TEST #> DOES NOT MATCH F.E. DISPOSITION <F.E. DISP> WHICH
IS ALREADY WRITTEN TO THE DATA BASE. YOU WILL NOT BE ABLE
TO CORRECT THIS PROBLEM BY USING PROGRAM OPTIONS AVAILABLE
TO MANUFACTURERS. PLEASE NOTIFY YOUR EPA CERTIFICATION
TEAM MEMBER.

EPA Certification Team members should be able to use direct disposition assignment to resolve any problem caused by inconsistent Fuel Economy Disposition codes.

8. RESTART command. The RESTART command is used to cancel entry of dispositions for the current vehicle version and start over, while remaining within the main command sequence however. No data base update is performed if the RESTART command is entered and test information for pending disposition assignments is cleared from the program. Once actual disposition assignments have been written to the data base, subsequent entry of the RESTART command has no effect on dispositions in the data base. The form of the RESTART command is:

DCMD: restart

- I ----'restart' entered by the user
- 'R' may be entered as an abbreviation for the RESTART command
- 9. QUIT command. The QUIT command is used to cancel entry of dispositions for any current vehicle version, to exit the command sequence, and start over at the beginning of the program. No data base update is performed if the QUIT command is entered and test information for pending assignments is cleared from the program. Actual disposition assignments that have been written to the data base because the COMMIT command was entered are not affected by the QUIT command. The form of the QUIT command is:

DCMD. quit

- I ----'quit' entered by the user
- 'Q' may be entered as an abbreviation for the QUIT command.

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When the QUIT command is entered, the Disposition Assignment Program prepares a disposition assignment summary report. copy is stored in temporary file -RR, where it can be printed or displayed by users after the program terminates. An example of this report is included in Attachment II. When the program is run by manufacturers, a copy is also sent to an EPA holding file. The holding file is periodically copied to the EPA printer and the reports are distributed to Certification Team members. Reports are only written to the holding file when dispositions are assigned by manufacturers. If the QUIT command is entered and no dispositions have been assigned, the program prints the following message:

NO DISPOSITIONS WERE ASSIGNED. NO REPORT WILL BE PRO-DUCED.

10. Help commands. Help commands are available to provide an explanation of the commands available for disposition assignment. The form of each Help command is listed below:

DCMD: help

DCMD: help nnnnnn * DCMD: help table

DCMD: help short-table

DCMD: help commit DCMD: help enter DCMD: help restart DCMD: help quit

The following abbreviations may be entered for each HELP command:

Η HELP

HNHELP NNNNNN *

HТ HELP TABLE

HST HELP SHORT-TABLE

HC HELP COMMIT

HEHELP ENTER

HELP RESTART HR

НΟ HELP QUIT *Note: You cannot replace nnnnnn or NNNNNN with a test number in the HELP NNNNNN commands.

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Attachment I -- Error Messages

Attachment I -- Numbered Error Messages.

*** ERROR 100: MTS CCID <MTS CCID> IS NOT ALLOWED TO ACCESS DATA FOR TEST NUMBER <TEST #> V.I. MANUFACTURER <V.I. MFR CODE> AND TEST MODEL YEAR <MODEL YEAR>

This message is printed if a manufacturer attempts to access data for a different manufacturer. EPA maintains a list of manufacturers that are allowed to use or update data belonging to other manufacturers. This list is organized on a model year basis. When an attempt is made to access disposition information, the Disposition Assignment Program uses this list to determine whether the using MTS CCID is allowed to access test data for the test manufacturer and model year. If the list indicates that access is not allowed, the message is printed.

This message will usually be printed because test number is incorrect—the test belongs to a different manufacturer. If the user believes that access really should be permitted, notify your Certification Team member. It may be necessary to update the manufacturer access list.

**** ERROR 4001: SOFTWARE OR DATA BASE ERROR ATTEMPTING TO DE-TERMINE UPDATE PRIVILEGE FOR MTS CCID <CCID> STATUS CODE RETURNED BY SUBROUTINE CKUSER = <STATUS CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 4002: MTS CCID <CCID> IS NOT ALLOWED TO ACCESS IN-FORMATION IN EPA TEST DATA FILES. This message is printed if the user is not allowed any access to EPA test information. Notify someone in the EPA Certification Division Computer Support Section if you believe access should really be allowed.

**** ERROR 4003: SOFTWARE OR DATA BASE ERROR. THE USER CODE RETURNED BY SUBROUTINE CKUSER IS INVALID.

VALUE = <USER CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

Software and data base errors:

Software and data base errors terminate execution of the program. If one of these errors is encountered, notify someone in the EPA Certification Division Computer Support Section.

The following convention has been adopted to identify software and data base errors (Only EPA software maintenance personnel need to be concerned about this). Each error condition is given an error number of the following form:

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Error number = 1uunnii, where

uu = the FORTRAN unit number of the file or device that
 encountered the problem
 nn = error type
 ii = instance (first possible occurrence in the program,
 second, etc.)

Standard meanings have been given to several values of error type nn:

nn = 01 --I/O error attempting to read interactive terminal entry with character read.

- nn = 02 --I/O error attempting to read file record with character read.
- nn = 03 --I/O error attempting to read field value with numeric read.
- nn = 04 --I/O error attempting to read record with numeric read.

nn = 05 --Attempt to lock nonexistent file

nn = 08 --Attempt to lock file will create a deadlock.

- nn = 09 --Attempt to lock file cannot be accomplished at this time.
- nn = 12 --I/O error attempting to write a data file record using a character write.
- nn = 14 --I/O error attempting to write a data file record using a numeric write.

Higher values have been assigned to nn for other errors. Each message is listed below with the action a user should take if one of the messages appears.

General File Access Errors: These error messages are printed if the Disposition Assignment Program cannot access a specified file. Since similar messages are printed for all files, each message is described in a single place for all files.

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*** SOFTWARE ERROR 1uu0501: ATTEMPT TO LOCK NONEXISTENT FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR luu0601: HARDWARE ERROR OR SOFTWARE INCONSISTENCY ENCOUNTERED DURING ATTEMPT TO LOCK FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1uu0701: WARNING: ACCESS APPROPRIATE TO LOCKING REQUEST NOT ALLOWED. ATTEMPT TO REQUEST READ ACCESS FOR FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1uu0702: ACCESS APPROPRIATE TO LOCKING REQUEST NOT ALLOWED. ATTEMPT TO REQUEST WRITE ACCESS FOR FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1uu0703: ACCESS APPROPRIATE TO LOCKING REQUEST NOT ALLOWED. ATTEMPT TO REQUEST UNLIMITED ACCESS FOR FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR luu0801: ATTEMPT TO LOCK FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu WILL CREATE A DEADLOCK.

This message is printed if another program is already accessing a file and an attempt to lock the file will create a deadlock

that will prevent access by both programs. Because the Disposition Assignment Program has been designed to avoid deadlocks, his message probably identifies a software problem in the program; please notify someone in the EPA Computer Support Section if this message appears. In the meantime, it should be possible to run the program at another time when the file is not being accessed by other users. If this message appears during an attempt to update the data base, it is especially important to notify someone in the EPA Certification Division Computer Support Section because a partial data base update may have occurred.

*** ERROR 1uu0901: ATTEMPT TO LOCK FILE <FILE NAME> ASSIGNED TO FORTRAN UNIT uu CAN NOT BE ACCOMPLISHED AT THIS TIME. ANOTHER MTS ACCOUNT IS APPARENTLY USING THIS FILE.

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This message is printed if another program is already accessing a file needed by the Disposition Assignment Program. If this message appears during an attempt to update the data base, notify someone in the EPA Certification Division Computer Support Section because a partial data base update may have occurred. Otherwise, it should be possible to run the program at a different time when other users are not accessing the data file.

**** ERROR 1050101: I/O ERROR ATTEMPTING TO READ USER ENTRY WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <MTS STATUS CODE>

**** ERROR 1050102: I/O ERROR ATTEMPTING TO READ USER ENTRY WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <MTS STATUS CODE>

**** ERROR 1050103: I/O ERROR ATTEMPTING TO READ USER ENTRY WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <MTS STATUS CODE>

**** ERROR 1050104: I/O ERROR ATTEMPTING TO READ USER ENTRY WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <MTS STATUS CODE>

**** ERROR 1050105: I/O ERROR ATTEMPTING TO READ USER ENTRY WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <MTS STATUS CODE>

**** ERROR 1050106: I/O ERROR ATTEMPTING TO READ USER ENTRY WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <MTS STATUS CODE>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1050201: NO VALID ENTRY AFTER <NUMBER TRIES> TRIES. INPUT REQUEST TERMINATED.

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1200101: SOFTWARE OR DATA BASE ERROR. THE DISPOSITION ASSIGNMENT PROGRAM COULD NOT FIND THE V.I. RECORD FOR THE FOLLOWING VEHICLE:

V.I. MFR CODE = <V.I. MFR CODE>

VEHICLE ID = <VEHICLE ID>

INTERNAL VEHICLE NUMBER = <INTERNAL VEHICLE NUMBER>

VEHICLE VERSION = <VEHICLE VERSION>

RECORD NUMBER = <RECORD NUMBER>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

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**** ERROR 1200201: I/O ERROR ATTEMPTING TO READ VEHICLE IN-FORMATION RECORD WITH CHARACTER READ FOR THE FOLLOWING VEHI-CLE:

STATUS CODE RETURNED BY MTS = <STATUS CODE>

RECORD NUMBER = <RECORD NUMBER>

V.I. MFR CODE = <V.I. MFR CODE>

VEHICLE ID = <VEHICLE ID>

INTERNAL VEHICLE NUMBER = <INTERNAL VEHICLE NUMBER>

VEHICLE VERSION = <VEHICLE VERSION>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1200401: I/O ERROR ATTEMPTING TO READ VEHICLE IN-FORMATION RECORD WITH NUMERIC READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE> RECORD NUMBER = <RECORD NUMBER>

RECORD =

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1251301: I/O ERROR ATTEMPTING TO UPDATE THE MICRO UPDATE FILE.

I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>

*** ERROR 1251401: I/O ERROR ATTEMPTING TO UPDATE THE MICRO UPDATE FILE ***

I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1211401: I/O ERROR ATTEMPTING TO UPDATE THE DF UPDATE FILE ***

I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1230101: NO MANUFACTURER RECORD IN DATA CODES FILE SAQE:1001D FOR MANUFACTURER <V.I. MFR CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1240201: I/O ERROR ATTEMPTING TO READ WORK FILE RECORD WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

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If this message appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1240301: I/O ERROR ATTEMPTING TO READ FIELDS IN WORK FILE RECORD WITH NUMERIC READ. STATUS CODE RETURNED BY MTS = <STATUS CODE>+....I....+....I....+....I. , , ********** RECORD ********* ********* RECORD ********* ********* RECORD ********* ********* RECORD ********* ******* RECORD ******** If this message appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1241401: I/O ERROR ATTEMPTING TO UPDATE THE DISPOSI-TION ASSIGNMENT WORK FILE. I/O STATUS CODE RETURNED BY MTS = <STATUS CODE> If this message appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1325601: INVALID CERTIFICATION DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+...X....+...X BAD RECORD PRINTED *** ERROR 1335601: INVALID CERTIFICATION DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+....X....+....X **** BAD RECORD PRINTED **** If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1325701: INVALID FUEL ECONOMY DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+...X....+...X * * * * BAD RECORD PRINTED * * * * *** ERROR 1335701: INVALID FUEL ECONOMY DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+...X....+...X BAD RECORD PRINTED ****

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

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- *** ERROR 1325801: INVALID TEST PACKET STATUS IN DISPOSITION
 ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
 BAD RECORD = ...+...X...+...X

 **** BAD RECORD PRINTED ****
- *** ERROR 1335801: INVALID TEST PACKET STATUS IN
 DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
 BAD RECORD =+....X....+....X

 **** BAD RECORD PRINTED ****

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

- *** ERROR 1320201: I/O ERROR ATTEMPTING TO READ DISPOSITION ASSIGNMENT RECORD WITH CHARACTER READ.

 STATUS CODE RETURNED BY MTS = <STATUS CODE>
- *** ERROR 1330201: I/O ERROR ATTEMPTING TO READ DISPOSITION ASSIGNMENT RECORD WITH CHARACTER READ.

 STATUS CODE RETURNED BY MTS = <STATUS CODE>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

- *** ERROR 1325601: INVALID CERTIFICATION DISPOSITION IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
 BAD RECORD =+...X....+...X

 **** BAD RECORD PRINTED ****
- *** ERROR 1335601: INVALID CERTIFICATION DISPOSITION IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
 BAD RECORD =+...X....+...X ...

 **** BAD RECORD PRINTED ****

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1325701: INVALID FUEL ECONOMY DISPOSITION IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
BAD RECORD =+...X...+...X ...

**** BAD RECORD PRINTED ****

*** ERROR 1335701: INVALID FUEL ECONOMY DISPOSITION IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
BAD RECORD =+...X....+...X ...

**** BAD RECORD PRINTED ****

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

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*** ERROR 1325801: INVALID TEST PACKET STATUS IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
BAD RECORD =+....X....+....X

**** BAD RECORD PRINTED ****

*** ERROR 1335801: INVALID TEST PACKET STATUS IN
DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>
BAD RECORD =+....X....+....X ...

**** BAD RECORD PRINTED ****

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

- *** ERROR 1320201: I/O ERROR ATTEMPTING TO READ DISPOSITION ASSIGNMENT RECORD WITH CHARACTER READ.

 STATUS CODE RETURNED BY MTS = <STATUS CODE>
- *** ERROR 1330201: I/O ERROR ATTEMPTING TO READ DISPOSITION ASSIGNMENT RECORD WITH CHARACTER READ.

 STATUS CODE RETURNED BY MTS = <STATUS CODE>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1325601: INVALID CERTIFICATION DISPOSITION IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER>

BAD RECORD =+....X....+....X **** BAD RECORD PRINTED *** ERROR 1335601: INVALID CERTIFICATION DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+...X....+...X **** BAD RECORD PRINTED If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1325701: INVALID FUEL ECONOMY DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+....X....+....X **** BAD RECORD PRINTED **** *** ERROR 1335701: INVALID FUEL ECONOMY DISPOSITION IN DISPO-SITION ASSIGNMENT FILE AT RECORD NUMBER <RECORD NUMBER> BAD RECORD =+...X....+...X.... **** BAD RECORD PRINTED If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section. March 20, 1989 -27-Attachment I -- Error Messages *** ERROR 1325801: INVALID TEST PACKET STATUS IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER < RECORD NUMBER> BAD RECORD =+....X....+....X **** BAD RECORD PRINTED **** *** ERROR 1335801: INVALID TEST PACKET STATUS IN DISPOSITION ASSIGNMENT FILE AT RECORD NUMBER < RECORD NUMBER> BAD RECORD =+...X....+...X **** BAD RECORD PRINTED If one of these messages appears, notify someone in the EPA Certi-

*** ERROR 1320201: I/O ERROR ATTEMPTING TO READ DISPOSITION ASSIGNMENT RECORD WITH CHARACTER READ.

fication Division Computer Support Section.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

*** ERROR 1330201: I/O ERROR ATTEMPTING TO READ DISPOSITION ASSIGNMENT RECORD WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1410201: I/O ERROR ATTEMPTING TO READ EPA TEST DATA RECORD WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

RECORD NUMBER = <RECORD NUMBER>

*** ERROR 1420201: I/O ERROR ATTEMPTING TO READ EPA TEST DATA RECORD WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

RECORD NUMBER = <RECORD NUMBER>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1410401: I/O ERROR ATTEMPTING TO READ EPA TEST DATA RECORD WITH NUMERIC READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

RECORD =

*** ERROR 1420401: I/O ERROR ATTEMPTING TO READ EPA TEST DATA RECORD WITH NUMERIC READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>
RECORD =

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If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1415101: INVALID CERTIFICATION DISPOSITION IN EPA TEST DATA FILE AT RECORD NUMBER < RECORD NUMBER> BAD RECORD =+...II ****** BAD RECORD ****** *** ERROR 1425101: INVALID CERTIFICATION DISPOSITION IN EPA TEST DATA FILE AT RECORD NUMBER < RECORD NUMBER> BAD RECORD =+....I+....I ****** BAD RECORD ****** If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1415201: INVALID FUEL ECONOMY DISPOSITION IN EPA TEST DATA FILE AT RECORD NUMBER < RECORD NUMBER >+....I+....I BAD RECORD = ****** BAD RECORD ****** *** ERROR 1425201: INVALID FUEL ECONOMY DISPOSITION IN EPA TEST DATA FILE AT RECORD NUMBER < RECORD NUMBER > BAD RECORD =+...I+...I ****** BAD RECORD ****** If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section. *** ERROR 1415301: INVALID TEST PACKET STATUS IN EPA TEST DATA FILE AT RECORD NUMBER < RECORD NUMBER > BAD RECORD =+....I+....I ***** BAD RECORD ****** *** ERROR 1425301: INVALID TEST PACKET STATUS IN EPA TEST DATA FILE AT RECORD NUMBER < RECORD NUMBER> BAD RECORD =+....I+....I ****** BAD RECORD ******

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

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*** ERROR 1410402: I/O ERROR ATTEMPTING TO READ EPA TEST DATA RECORD WITH NUMERIC READ ***

STATUS CODE RETURNED BY MTS = <STATUS CODE>
RECORD =

*** ERROR 1420402: I/O ERROR ATTEMPTING TO READ EPA TEST DATA RECORD WITH NUMERIC READ ***

STATUS CODE RETURNED BY MTS = <STATUS CODE>
RECORD =

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

- *** ERROR 1411201: I/O ERROR ATTEMPTING TO UPDATE EPA TEST DATA FILE <FILE NAME>
- I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>
- *** ERROR 1421201: I/O ERROR ATTEMPTING TO UPDATE EPA TEST DATA FILE <FILE NAME>
- I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1440201: I/O ERROR ATTEMPTING TO READ EPA IDLE CO TEST RECORD WITH CHARACTER READ *** STATUS CODE RETURNED BY MTS = <STATUS CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1430401: I/O ERROR ATTEMPTING TO READ MANUFACTURER OR EPA IDLE CO TEST RECORD DATA. STATUS CODE RETURNED BY MTS = <status code=""> RECORD = +I+I+I., ,, *****************************</status>
*** ERROR 1440401: I/O ERROR ATTEMPTING TO READ MANUFACTURER OR EPA IDLE CO TEST RECORD DATA. STATUS CODE RETURNED BY MTS = <status code=""> RECORD =+I+I.,, ********************************</status>
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Attachment IError Messages
If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.
*** ERROR 1430402: I/O ERROR ATTEMPTING TO READ MANUFACTURER OR EPA IDLE CO TEST RECORD DATA (SYSTEM MILES). STATUS CODE RETURNED BY MTS = <status code=""> RECORD =+I+I,, *******************************</status>
*** ERROR 1440402: I/O ERROR ATTEMPTING TO READ MANUFACTURER OR EPA IDLE CO TEST RECORD DATA (SYSTEM MILES). STATUS CODE RETURNED BY MTS = <status code=""> RECORD =+I+I.,, ********************************</status>
If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.
*** ERROR 1435401: INVALID CERTIFICATION DISPOSITION IN MTDS OR EPA IDLE CO DATA FILE AT RECORD NUMBER <record number=""> BAD RECORD =+I+I ******* BAD RECORD *******</record>
*** ERROR 1445401: INVALID CERTIFICATION DISPOSITION IN MTDS OR EPA IDLE CO DATA FILE AT RECORD NUMBER <record number=""></record>

BAD RECORD = ...+...I+...I

******* BAD RECORD *******

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1435501: INVALID FUEL ECONOMY DISPOSITION IN MTDS OR EPA IDLE CO DATA FILE AT RECORD NUMBER <RECORD NUMBER>
BAD RECORD =+....I+....I

******* BAD RECORD *******

*** ERROR 1445501: INVALID FUEL ECONOMY DISPOSITION IN MTDS OR EPA IDLE CO DATA FILE AT RECORD NUMBER <RECORD NUMBER>
BAD RECORD =+....I+....I

******* BAD RECORD *******

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

- *** ERROR 1431201: I/O ERROR ATTEMPTING TO UPDATE MANUFACTURER OR EPA IDLE CO TEST DATA FILE <FILE NAME>
 I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>
- *** ERROR 1441201: I/O ERROR ATTEMPTING TO UPDATE MANUFACTURER OR EPA IDLE CO TEST DATA FILE <FILE NAME>
 I/O STATUS CODE RETURNED BY MTS = <STATUS CODE>

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Attachment I -- Error Messages

If one of these messages appears, notify someone in the EPA Certification Division Computer Support Section.

*** ERROR 1470201: I/O ERROR ATTEMPTING TO READ DATA CODES RECORD IN FILE SAQE:1001D WITH CHARACTER READ.

STATUS CODE RETURNED BY MTS = <STATUS CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1450201: SOFTWARE OR DATA BASE ERROR FOR TEST <TEST #> THIS TEST IS ENTERED IN THE EPA DATA BASE; HOWEVER, THERE IS NO TEST LOCATOR RECORD FOR THE VEHICLE VERSION.
TEST V.I. MANUFACTURER = <V.I. MFR CODE>

TEST VEHICLE ID = <VEHICLE ID>
INTERNAL VEHICLE NUMBER = <INTERNAL VEHICLE NUMBER>
VERSION NUMBER = <VERSION NUMBER>
RECORD NUMBER = <RECORD NUMBER>
STATUS CODE RETURNED BY MTS = <STATUS CODE>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1450301: SOFTWARE OR DATA BASE ERROR FOR TEST < TEST #> I/O ERROR READING NUMBER OF TESTS FIELD IN COLUMNS 46-48 OF THE TEST MASTER LOCATOR RECORD.

TEST V.I. MANUFACTURER = <V.I. MFR CODE>

TEST VEHICLE ID = <VEHICLE ID>

VERSION NUMBER = <VERSION NUMBER>

RECORD NUMBER = <RECORD NUMBER>

STATUS CODE RETURNED BY MTS = <STATUS CODE>

BAD TEST LOCATOR RECORD = <BAD RECORD>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

**** ERROR 1450302: SOFTWARE OR DATA BASE ERROR FOR TEST <TEST #> THE NUMBER OF TESTS BELONGING TO THE VEHICLE VERSION EXCEEDS PROGRAM DIMENSIONS.

TEST V.I. MANUFACTURER = < V.I. MFR CODE>

TEST VEHICLE ID = <VEHICLE ID>

VERSION NUMBER = <VERSION NUMBER>

RECORD NUMBER = <RECORD NUMBER>

NUMBER OF TESTS FOR VEHICLE VERSION =

<ACTUAL NUMBER TESTS>

MAXIMUM NUMBER OF TESTS = <MAXIMUM NUMBER TESTS>

If this message appears, notify someone in the EPA Certification Division Computer Support Section.

PROCESS TIME 01-31-89 08:44:01

TTTTTT

PPPPPP			DDD	DDDDDD			IIII		SSSSS	
			DD	D		II	S	SS	S	PP
P			DD	D		II	S	SS		PP
P			DD	D		II		SSSS	S	
PPPPPP			DD	D		II			SS	
			DD DDD	D DDD DDD		II IIII		SSSS	SS S	
TTTTTT	RRR	.RRR	EEEEEEE	PPPPPI	Ρ	000	000	RRR:	RRR	2
TT	RR	R	EE	PP	Ρ	00	00	RR		R
TT	RR	R	EE	PP	Р	00	00	RR		R
	RRR	RRR	EEEE	PPPPPP		00	00	RRRRRR		2
TT	RR	R	EE	PP		00	00	RR	R	
TT	RR	R	EE	PP		00	00	RR	R	2
TT	RR	R	EEEEEEE	PP		000	000	RR		R
TT										

CCCCC EEEEEEE RRRRRR

CC C EE RR R

TT						
mm.	CC		EE	RR	R	
TT	CC		EEEE	RRRF	RRRRRR	
TT	CC		EE	RR	R	
TT	CC	C	EE	RR	R	
TT		J				

CCCCC EEEEEEE RR R TT

TTTTTT EEEEEEE AAA M M 33333 TTAA AA MM MM 33 33 $\mathbf{E}\mathbf{E}$ TTEEAA AA MMM MMM 33 33 AA MM M MM TT EEEE AA TT EE AAAAAA MM MM 33 EE

AA TT EEEEEEE AA AA MM MM

AA MM MM 33 33

33333

ATTACHMENT II EXAMPLE TEAM REPORT

TT

PROCESS TIME 01-31-89 08:44:01

DISP FE DISP TEST PACKET STATUS TEST NUMBER VEHICLE ID PREVIOUS MANUFACTURER

ASSIGNED PREVIOUS ASSIGNED PREVIOUS ASSIGNED TYPE PROCEDURE

MODICINED TREVEOUS MODICINES	INDVIOUS INDUIC	INDESTITE TROCEDORE	
TASMANIA MOTOR WORKS 1 2 DISPOSITION ASSIGNED	123456	TMW-EDV-502 01 02	1
TASMANIA MOTOR WORKS 2 2 DISPOSITION ASSIGNED	123457	TMW-EDV-502 01 03	2
TASMANIA MOTOR WORKS 1 2 DISPOSITION ASSIGNED	895432 1 1	TMW-EDV-502 01 02	1
TASMANIA MOTOR WORKS 2 2 DISPOSITION ASSIGNED	895433 1 1	TMW-EDV-502 01 03	2

DISPOSITION ASSIGNED

ATTACHMENT II

ENCLOSURE II -RETESTS AND FUEL ECONOMY DISPOSITION ASSIGNMENT CAN BE

FOUND IN

DOCUMENTS CD8903_1.PCX AND CD8903_2.PCX